

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC. 20554

In the Matter of

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)	
Field Repair Requirements)	RM-10412
for Commercially-built)	
Transmitter and Transceiver)	
Equipment for the Amateur)	
Radio Service)	
)	

To: The Commission

Additional Reply Comments by Nickolaus E. Leggett
N3NL Amateur Radio Operator

The following is the second set of Reply Comments from Nickolaus E. Leggett, an amateur extra class radio operator, inventor (U.S. Patents 3,280,929 and 3,280,930 and an patent application pending), and a certified electronics technician. These replies are directed at selected comments that have been submitted in RM-10412.

My first set of Reply Comments were submitted on April 22, 2002.

Megadisasters

The Commission should pay special attention to the detailed comments filed by attorney Don Schellhardt. Mr. Schellhardt makes many substantive contributions to this proceeding.

Of special importance is his concept of the megadisaster which he defines as:

A life-threatening disaster, either natural or man-made, of sufficient intensity and scale that it: (a) destroys and/or disables much, most or all of the basic infrastructure and services over an area of *at least* 10,000 square miles, for a period of *at least* weeks or months; and (b) prevents and/or significantly restricts the flow

of relief supplies and personnel, from areas which are not directly affected, for a period of *at least* two weeks.

A megadisaster can be either natural or man-made in nature. These megadisasters are situations where the amateur radio operator's opportunity to repair and improvise radio communications equipment will be very useful.

In addition, Schellhardt makes the important point that the Commission's decision on the issue of field repair should be based on the National interest and not necessarily on the convenience or the preferences of the amateur radio operators themselves.

Using Field-Replaceable Circuit Boards

Mr. Neil J. Nitzberg, amateur radio WB2CIR, has submitted comments stating that the use of static-sensitive replacement circuit boards by amateur radio operators would be impractical. This observation is quite surprising since the personal computer (PC) industry has been using such replacement circuit boards for years. Consumers by the millions have been successfully installing and replacing these boards in their PCs. Certainly amateur radio operators can do the same.

Amateur Radio Appliance Operators

Mr. Rich Eyre, amateur radio K7REC, states that: "Although some may disagree with me when I say that the 'appliance operator' is the future of Amateur Radio, it really is." In addition, Mr. Eyre provides a footnote that defines an appliance operator. "Appliance Operator refers to an amateur radio operator who prefers to operate amateur radio equipment that requires no assembly."

If the comments in RM-10412 are actually representative of the amateur radio operators as a whole, this has already occurred. The question for the Commission is **should** this situation continue.

It seems likely that amateur radio operators will not learn much electronics from radio equipment that is resistant to field repair. Therefore the learning of electronics is being relegated to a marginal role in amateur radio.

The Commission must ask if the learning of electronics is still important in amateur radio. If it is important, then active steps such as setting up field repair standards should be taken to place electronics learning at the core of amateur radio. Other options could be considered as well including:

- Establishment of an Experimenters Radio Service with its own licensing and frequency allocations
- Prohibition of the use of commercially-built radio equipment on designated bands within the amateur radio frequency allocations
- Establishment of “pioneer bands” within the amateur radio frequency allocations exclusively for the use of experimental modes of communications such as digital voice transmission
- Establishment of practical lab work exams as an alternative to the current examination structure

If the learning of electronics is not important (or not as important as it once was) then we should consider Mr. Schellhardt’s suggestion that: “Perhaps it *is* time to reconsider, and potentially re-define, the traditional roles and obligations of the Amateur Radio Service.”

Linear Models of Technological Progress

Many of the comments submitted suggest that technological “progress” is a straight linear path where there is only one type of radio design that is modern and modifying that design philosophy leads to old fashioned radios. For example, Mr. Eyre states: “By even

considering this petition, we might as well consider bringing back spark-gap, crystal controlled transmitters for the Novice class operators and the Connelrad system.”

This is too narrow a view of technological development. The history of invention indicates that technological progress is the process of discovering and exploring the tens of thousands of alternatives that exist in the physical universe. The amateur radio service should be structured so that amateur radio operators contribute to that discovery and exploration of technological options. Field repair standards will support this discovery process.

Respectfully submitted,

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